



## General Training On Methodologies For Geological Disposal in North America

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## The Yucca Mountain Project, Historical Perspective-Interactions with Congress and Oversight Bodies



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### Generic Program Policy Evolution

- Recognition of Need To Do Something
- Establishment of Initial Program
- Implementation of Program
- Feedback from experiences
- Revisions to Program
- Program Survival, Termination, or Major Redirection

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### Waste Management Policy Drivers

*Dynamic Interaction Over Time of:*

- . Technology
- . Economics
- . Sociological/Psychological Perspectives
- . Democratic Government Processes
  - Legislative
  - Executive
  - Judicial
- . Politics
  - Constituent
  - Other

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### Early Programs & Difficulties

- **Government Technology Will Solve**  
1957-U.S. Academy of Sciences :Geological Disposal
- **Nuclear Expansion Accelerates**
- **1972: Lyons Kansas Salt Site Selection Failure**
- **1974: Energy & Economic Changes**
  - Economic slowdown & High Interest Rates
  - Nuclear Energy Slows & Fuel Reprocessing Halted
- **Environmental & Anti-Nuclear Movement**
  - Three Mile Island
- **New National Waste Policy Need Recognized**

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### National Nuclear Waste Policy Development (1977-1982)

- **Congress Debates National Waste Policy**
  - Atmosphere of Federal Distrust: Watergate & TMI
- **Utilities Wanted Off Site Storage**
- **Anti Nuclear Groups Wanted no Off Site Fuel Storage/Reprocessing**
- **States & Native Americans Wanted Site Disapproval Power**
- **East/West Regional Equity Issue**
- **Who should Pay, How Much & When Perform**
- **What Organization Should Implement**

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### Nuclear Waste Policy Act of 1982 -Political Consensus Achieved

- **DOE to Build Two Deep Repositories**
  - Independent Regulation by EPA/NRC
  - West and East Repositories for Regional Equity
  - Develop Proposal for Storage Facility (MRS)
- **Paid for by Waste Generators under legal contract**
  - January 1998 Start Date
- **Final Repository selected by scientific comparison to determine "best" site.**
  - Three sites to be characterized underground
- **Specific balance of power between Federal, State/Tribal, and Local Governments**

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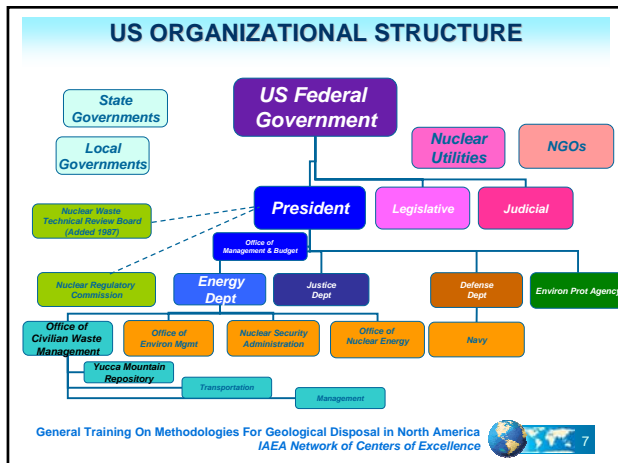
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### Initial Progress & Setbacks (1983-86)

- **Office Of Civilian Radioactive Waste Office Formed**
- **Open & Transparent Process Begins**
  - Environmental Assessments of 9 Sites Issued & 3 Selected
- **High State Resistance**
  - Election Partisan Politics Intrude
  - Information Demands Explode
  - Near Zero Uncertainty/Risk demanded
- **Schedules Slip and Costs Increase**
  - Repository schedule slips from 1998 to 2010
  - Site Characterization from \$60M to \$1B each
- **Second (Eastern) Repository Work Stopped**

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### Nuclear Waste Policy Act, Amended 1987

-Limited Congressional Debate with Strong Special Interests

- **Limited investigations to only Yucca Mountain**
  - Cost & Political expediency
- **Established Nuclear Waste Negotiator**
  - to find a State or Tribe volunteer to host a repository or monitored retrievable storage site
  - authorization expired in 1994
- **Established the Nuclear Waste Technical Review Board**
  - Additional independent oversight

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### Program Stagnation (1988-1992)

- **Nevada Infuriated & Increased Opposition**  
Stops site work by withholding diesel engine air permits
- **Site Characterization Alternatives Extensively Analyzed**  
e.g. NWTRB recommends ramps instead of shafts
- **Utility & State Regulators Become Frustrated**  
Criticize DOE & Threaten lawsuits
- **Congress Dissatisfied & Cuts Funding to DOE**
- **Congress Creates New Environmental Stds Process**
- **Nevada finally forced to issue air permits**
- **Internal Management Issues Delay Work**

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### Program Recovery and Progress (1993-2000)

- **Management Change & New Program Focus**
- **Started Tunnel at Yucca Mountain**
- **Yucca Scientific Work Sustained**
  - 10 km tunnel completed
  - “Viability Assessment” completed
  - Environmental Statements Issued
- **Congressional Proposal for Interim Storage is defeated by one Senate vote**
- **Program Budgets Reduced By Congress**
- **Site Decision Process Initiation Delayed in 2000**
  - Presidential election



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### National Site Decision Progress (2001)

- **Bush Administration & Cheney Energy Policy Issued**
- **EPA Yucca Mtn Environmental Standard Issued**
  - How safe is “safe enough”?
- **DOE Secretary Abraham Reviews Program In Depth**
- **NWPA Site Designation Process Allowed to Proceed if:**
  - The Secretary & President concludes That The Site Scientifically Meets EPA/NRC/DOE Standards
  - Strict Compliance with Legislated Administrative Processes
- **The Site Decision Process**
  - External Reviews
  - Comprehensive Public Interaction
  - Sustaining Timely Political Decisions
- **Secretary Abraham Recommends Approval to President Bush**

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### National Site Decision (2002)

- **President Bush Meets With Nevada Governor**
- **President Bush Designates Site**
- **Nevada Governor Disapproves Site**
- **Congress overrides Nevada Disapproval**
  - House vote: 306 to 117
  - Senate vote: 60 (45R & 15D) to 39
- **Nevada Continues Legal Fight Against Site Designation**
  - Administrative Processes
  - Transportation
  - DOE, NRC & EPA Standards
- **Nevada Senator Reid Continues to Reduce Budgets**

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### Yucca Situation (2004)

- **Yucca Technical Work proceeds:**
  - Addresses NWTRB Corrosion Issue
  - Prepares NRC License Application Package
- **DOE's 2005 Budget Request Required New Funding Legislation which was not passed, causing the potential of a shutdown budget.**
- **Federal Court rejects all Nevada Lawsuit claims except for the EPA Yucca Standard, which it remands to EPA & NRC for action, creating licensing uncertainty**
- **Yucca License Application Administrative Records Preparation process has legal difficulties**

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### Utility Spent Fuel Litigation

- **Nuclear Utilities Continue to Press their Lawsuits for damage payments because the Government has not performed under contract to remove spent fuel from their reactor sites.**
- **Exelon( 17% of industry) agreed to a legal settlement with a payment of \$300 Million from the taxpayer accounts, assuming Yucca starts on schedule in 2010.**
  - Additional payments would be made if fuel removal is delayed beyond 2010.
- **Utilities are spending approximately \$500 Million per year for extra spent fuel storage and societal costs will increase over time until a Federal Facility begins operation.**

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## Yucca & Nevada Politics

- Nevada Media Sources Are Very Anti Yucca
- Nevada Politicians Are Very Sensitive to the Yucca Issue and take an “anti” position
- In the 2000 Presidential Election, Mr. Bush’s & Mr. Gore’s Yucca Positions were similar:
  - “I will base my decisions on sound science”
- Mr. Bush won Nevada by a few percent in 2000
- Nevada Democrats Accused Republican President Bush of lying to them, claiming that his site designation decision was not based on “sound science”.

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## Yucca & 2004 Presidential Election

- In 2004, polls indicate that the National election will be very close
- Nevada is evenly split between Kerry and Bush and is considered a battleground State by both parties.
- Senator Kerry, seeking an edge over President Bush, utilized historical concerns (which are not well understood by the voters, especially new Nevada residents) to publicly state (in Nevada only) that he will “**stop**” Yucca if he is elected President because he considers the science “**unsafe & unsound**”
- President Bush, defending himself, has stood by the science and has said he will let the independent technical experts (NRC) and Courts decide the fate of Yucca Mountain.

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## Conclusions

- Do everything Possible to Keep Your Program From Becoming a Political Election Issue
- Beware that Politicians can and will take Scientific Work out of Context
  - Oversight Groups must be especially careful e.g. Senator Kerry reference
- Do good science, and maintain a sustainable political base.

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